

CLAIMS:

1. Method of writing an ECC block (60) to a storage medium (1), the method comprising the steps of:
dividing the ECC block into a plurality of N block sections (61, 62, 63, 64, 65);
5 and successively writing the block sections (61, 62, 63, 64, 65) to the storage medium;
wherein always two successive block sections are separated by a combination of a trailing field (TF) following a first one of said two successive block sections and a leading field (LF) preceding a second one of said two successive block sections.
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2. Method according to claim 1, wherein the storage medium (1) is an optical disc.
3. Method according to claim 1, wherein the first block section (61) is preceded
15 by a run-in field (RIF) and wherein the final block section (65) is followed by a run-out field (ROF).
4. Method according to claim 3, wherein the storage medium (1) has at least one track (10) having predefined storage zones (Z) each having a predefined storage capacity;
20 wherein the combination of the plurality of N block sections, N-1 sets of trailing field (TF) and leading field (LF), one run-in field (RIF), and one run-out field (ROF) is stored within one of said zones (Z).
5. Method according to claim 1, wherein the block sections are written during a
25 plurality of successive micro-sessions (71, 72, 73, 74, 75) mutually separated by a time interval (T_{DC}).

6. Method according to claim 5, wherein only one block section is written in a micro-session, together with the corresponding trailing field and the corresponding leading field.
- 5 7. Method according to claim 5, wherein a plurality of block sections are written in a session, together with the corresponding trailing fields and the corresponding leading fields.
8. Method according to claim 7, wherein said plurality is smaller than N, or is
10 equal to N, or is greater than N.
9. Method according to claim 5, wherein the block sections are written by writing means (23) which are powered from a power capacitor (24); and
wherein the power capacitor (24) is charged during said time intervals (T_{DC})
15 and discharged during said micro-sessions.
10. Method according to claim 9, wherein the power capacitor (24) is charged from a battery (25).
- 20 11. Method of storing information to a storage medium (1), the method comprising the steps of:
coding a first predetermined amount of data into an ECC block (60) according to a predefined format;
generating at least one leading field (LF) and at least one trailing field (TF);
25 writing the ECC block by a method according to any of claims 1-10.
12. Storage medium (1) containing at least one ECC block (60) of coded data stored therein, said at least one ECC block comprising a plurality of N successive block sections (61, 62, 63, 64, 65);
30 wherein two adjacent block sections are separated each time by a combination of a trailing field (TF) behind a first one of said two adjacent block sections and a leading field (LF) before a second one of said two adjacent block sections.

13. Storage medium according to claim 12, the storage medium being an optical disc.
14. Storage medium according to claim 13, further containing a run-in field (RIF) before the first block section (61) of said at least one ECC block and a run-out field (ROF) behind the last block section (65) of said at least one ECC block.
15. Storage medium according to claim 14, comprising at least one track (10) having predefined storage zones (Z) each having a predefined storage capacity;
10 wherein a sequence consisting of said run-in field (RIF), said plurality of N block sections and N-1 sets of trailing field (TF) and leading field (LF), and said run-out field (ROF) is contained in one of said zones.
16. Method of reading information from a storage medium according to any of
15 claims 12-15, comprising the steps of:
- a] recognizing a run-in field (RIF) as signaling the beginning of an ECC block (60);
 - b] reading a block section (61) until a trailing field (TF) is reached as signaling the end of the block section;
 - 20 c] recognizing a leading field (LF) as signaling the beginning of a subsequent block section (62);
 - d] repeating steps [b]-[c] until in step [b] a run-out field (ROF) is reached as signaling the end of the ECC block;
 - e] combining the data of the respective block sections (61-65) read between said
25 RIF and said ROF so as to reconstruct an ECC block (60);
 - f] decoding the reconstructed ECC block;
 - g] outputting the decoded data.
17. Disc drive apparatus (20) for storing information on an optical disc (1);
30 the disc drive apparatus being designed to perform the method according to any of claims 1-11.
18. Disc drive apparatus according to claim 17, comprising:
an encoder (22);

- writing means (23) for writing data from the encoder (22) to an optical disc
(1);
a controller (30) capable of controlling the writing means (23);
wherein the controller is designed to control the writing means to be active in
5 writing data to disc during micro-sessions (71, 72, 73, 74, 75) and to be inactive during time
intervals (T_{DC} ') between successive micro-sessions.
19. Disc drive apparatus according to claim 18, further comprising:
a power capacitor (24) for feeding the writing means (23) during said micro-
10 sessions;
and a power supply (25), preferably a battery, for charging the power capacitor
(24) during said time intervals (T_{DC} ') between successive micro-sessions.
20. Disc drive apparatus for reading information from a storage medium according
15 to any of claims 12-15;
the disc drive apparatus being designed to perform the method according to
claim 16.